



# UNITED STATES PATENT AND TRADEMARK OFFICE

57  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,638	07/11/2001	Ingo Boeckmann	11150/30	2366
26646	7590	08/19/2005	EXAMINER	
KENYON & KENYON ONE BROADWAY NEW YORK, NY 10004			WOZNIAK, JAMES S	
			ART UNIT	PAPER NUMBER
			2655	

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/807,638

Applicant(s)

BOECKMANN ET AL.

Examiner

James S. Wozniak

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. In response to the office action from 3/2/2005, the applicant has submitted an amendment, filed 5/26/2005, adding claims 28-29, and arguing to traverse the art rejection based on the limitation regarding outputting a status message using an intonation in accordance with a relevance (*Amendment, Page 6*). Applicant's arguments have been fully considered, however the previous rejection is maintained due to the reasons listed below in the response to arguments, altered only with respect to added claims 28 and 29.

### ***Response to Arguments***

2. Applicant's arguments have been fully considered but they are not persuasive for the following reasons:

With respect to **Claim 11**, the applicant argues that Tsunoda (U.S. Patent: 4,359,713) fails to teach outputting a status message using an intonation in accordance with relevance (*Amendment, Page 6*), however the examiner notes that Tsunoda teaches a means for outputting a voice warning in accordance with a warning importance (Col. 5, Lines 16-41). The examiner also notes that Tsunoda teaches outputting voices having different pitch, tone, and loudness so that a driver can distinguish warning information (Col. 7, Lines 49-68). Thus, since Tsunoda

teaches adjusting a voice output with respect to tone, pitch, and loudness for distinguishing warning information importance, claim 11 remains rejected.

**Claims 12-19 and 22-27** are argued as further limiting a rejected independent claim (*Amendment, Pages 6-9*), and thus, also remain rejected.

With respect to **Claim 20**, the applicant argues that Marx fails to teach changing a dialog communication level in response to a failure to interact with a last of successive alternatives (*Amendment, Page 8*), however Marx et al (*U.S. Patent: 6,173,266*) teaches prompt alternatives issued in succession that may all vary (*Col. 13, Lines 49-50*). The last of the successive alternatives occurs when a threshold number of retries is reached and the system then resorts to a different dialog communication level (*Col. 13, Lines 12-67*). Thus, since Marx teaches varying prompts until a threshold number of prompts is reached for changing a dialog communication level, Claim 20 remains rejected.

With respect to **Claim 21**, see the response to arguments directed towards claim 11.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 11-13, 15-18, 21-23, and 28-29** are rejected under 35 U.S.C. 102(b) as being anticipated by Tsunoda (*U.S. Patent: 4,359,713*).

With respect to **Claims 11 and 21**, Tsunoda recites:

Storing the at least one of information and status messages relating to a voice output in a speech memory (*voice memory, Col. 3, Lines 24-35, and Fig. 1, Element 11*);

Selectively reading the at least one of information and status messages by a processing device (*voice output selector, Col. 3, Lines 24-35, and Fig. 1, Element 10*); and

Outputting the at least one of information and status messages on an output device using an intonation in accordance with a relevance (*outputting a louder voice for urgent or important information, Col. 5, Lines 16-41*).

With respect to **Claim 12**, Tsunoda discloses:

The output device includes a loudspeaker (*Col. 4, Lines 1-4, and Fig. 1, Elements 16a-16d*).

With respect to **Claim 13**, Tsunoda recites:

Information and status messages requiring immediate action are output in the outputting step using a command intonation (louder voice used to warn a user to respond to a low fuel situation, Col. 5, Lines 16-41).

With respect to **Claim 14**, Tsunoda recites:

Information and status messages requiring immediate action are output in the outputting step at a high volume (*urgent message regarding low fuel, output in a louder warning voice volume, Col. 5, Lines 16-41*).

With respect to **Claim 15**, Tsunoda recites:

Information and status messages requiring immediate action are output in the outputting step in a harsh manner (*loud voice, Col. 5, Lines 16-41*).

With respect to **Claim 16**, Tsunoda discloses:

Changing the speaking voice, by selecting from a plurality of speaking voices, for information and status messages requiring immediate action (*different speaking voices for enabling a user to distinguish information in a warning message, Col. 7, Lines 49-68*).

With respect to **Claim 17**, Tsunoda recites:

Increasing the intonation and a connotation of the at least one of information and status messages requiring immediate action in accordance with importance (*increasing voice loudness to suggest an increased level of urgency to an observer, Col. 5, Lines 16-41, and Col. 8, Lines 1-7*).

With respect to **Claim 18**, Tsunoda recites:

Varying the intonation with a decreasing connotation for the at least one of information and status messages not requiring immediate action (*decreasing voice loudness to suggest a lowered level of urgency to an observers, Col. 5, Lines 16-41, and Col. 8, Lines 1-7*).

With respect to **Claim 22**, Tsunoda discloses:

At least <sup>of</sup> information and status messages is output in the outputting step in a time period in accordance with the relevance (*outputting voice warnings in a specific time order according to importance, Col. 7, Lines 49-68*).

With respect to **Claim 23**, Tsunoda recites:

The plurality of speaking voices includes a male voice and a female voice, the male voice used for the at least one of information and status messages requiring immediate action and the female voice used for the at least one of information and status messages not requiring

immediate action (*outputting warning messages according to importance using a male and female voice, Col. 7, Lines 49-68*).

With respect to **Claims 28 and 29**, Tsunoda discloses:

Determining the relevance by the processing device (Col. 3, Lines 24-39 and Col. 5, Lines 16-41);

Wherein at least one of information and a status message of a particular one of the at least one electrical device is selectable for output using any of a plurality of intonations, and a particular one of the plurality of intonations is selected and used in accordance with the determined relevance (*voice output selector, Col. 3, Lines 24-39; Col. 5, Lines 16-41; and Col. 7, Lines 49-68*).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 19** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsunoda in view of Gulau et al (*U.S. Patent: 5,584,052*).

With respect to **Claim 19**, Tsunoda teaches the method of volume alteration of a voice warning according to urgency, as applied to Claim 11. Tsunoda does not specifically suggest an

additional step of controlling an electrical device using speech recognition, however, Gulau recites:

Controlling the at least one electrical device using speech recognition (*controlling various vehicle functions using a speech recognition engine, Col. 2, Lines 30-64*).

Tsunoda and Gulau are analogous art because they are from a similar field of endeavor in speech processing in an automotive application. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Tsunoda with the use of a speech recognition engine to control various vehicle functions as taught by Gulau to provide a hands-free and convenient means for automobile system control (*Gulau, Col. 2, Lines 30-64*).

7. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsunoda in view of Marx et al (*U.S. Patent: 6,173,266*).

With respect to **Claim 20**, Tsunoda teaches the method of volume alteration of a voice warning according to urgency, as applied to Claim 11. Tsunoda does not teach the use of alternative messages or the change in dialog state supplied when a user fails to respond, however Marx discloses:

Successively outputting alternatives of the information and status messages in response to a failure to interact until an interaction occurs (*prompts and re-prompts provided until a threshold number of recognition errors or timeouts occurs, Col 13, Line 40- Col. 14, Line 8*).



Changing a dialog-communication level in response to a failure to interact with a last of the successive alternatives (*fallback and termination steps upon successive timeouts, Col. 13, Line 40- Col. 14, Line 8, and Fig. 6*).

Tsunoda and Marx are analogous art because they are from a similar field of endeavor in providing speech-based messages and information to a user. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Tsunoda with the method of providing multiple prompt attempts in varying forms to a user that implements fallback and termination steps upon successive interaction failures as taught by Marx in order to provide a convenient means for error recovery when a user fails to respond to a prompt or when a recognition error occurs (*Marx, Col. 13, Lines 12-67*).

With respect to **Claim 26**, Marx further recites:

The failures to interact include a lack of interaction (*failure to respond resulting in a timeout, Col. 13, Line 40- Col. 14, Line 8*).

8. **Claim 24** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsunoda in view of Marx et al (*U.S. Patent: 6,173,266*), and further in view of Nara et al (*U.S. Patent: 5,007,095*).

With respect to **Claim 24**, Tsunoda in view of Marx teaches the method of volume alteration of a voice warning according to urgency that also includes a means for reprompting a user after a failed interaction using an alternative prompt and changing a dialog state upon failing to respond to a final reprompt, as applied to Claim 20. Tsunoda in view of Marx does not specifically suggest the of generating a synthesized prompt using a random number generator,

however the use of such a device for implementing a fluctuation in synthesized speech is well-known in the art, as is evidenced by Nara (Col. 9, Lines 3-19).

Tsunoda, Marx, and Nara are analogous art because they are from a similar field of endeavor in speech synthesis. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Tsunoda in view of Marx with the means for altering synthesized speech using a random number generator as taught by Nara in order to implement a well-known means for producing a natural sounding an modulated speech reprompt (*Nara, Col. 9, Lines 10-15*).

9. **Claim 25** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsunoda in view of Marx et al (*U.S. Patent: 6,173,266*), and further in view of Mandel et al (U.S. Patent: 4,400,787).

With respect to **Claim 25**, Tsunoda in view of Marx teaches the method of volume alteration of a voice warning according to urgency that also includes a means for reprompting a user after a failed interaction using an alternative prompt and changing a dialog state upon failing to respond to a final reprompt, as applied to Claim 20. Tsunoda in view of Marx does not specifically suggest that an alternative prompt differs in word arrangement, however Mandel recites:

The plurality of alternatives differs in word arrangement (Col. 1, Line 59- Col. 2, Line 8).

Tsunoda, Marx, and Mandel are analogous art because they are from a similar field of endeavor in system information presentation through synthesized speech. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the

teachings of Tsunoda in view of Marx with the means for arranging word order in a status message reprompt as taught by Mandel to prevent a monotonous repetition of the same message and increase message emphasis or urgency (*Mandel, Col. 1, Line 64- Col. 2, Line 1*).

10. **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsunoda in view of Marx et al (*U.S. Patent: 6,173,266*), and further in view of Chen et al (*U.S. Patent: 5,864,805*).

With respect to **Claim 27**, Tsunoda does not specifically suggest switching to a selection list upon a failure to interact. Tsunoda in view of Marx teaches the method of volume alteration of a voice warning according to urgency that also includes a means for reprompting a user after a failed interaction using an alternative prompt and changing a dialog state upon failing to respond to a final reprompt, as applied to Claim 20. Although Tsunoda in view of Marx teaches changing the dialog communication level to a fallback method upon repeated recognition errors, Tsunoda in view of Marx does not teach presenting a recognition candidate list to a user as a result of a recognition error, however Chen discloses such a means (*Col. 6, Line 66- Col. 7, Line 8*).

Tsunoda, Marx, and Chen are analogous art because they are from a similar field of endeavor in speech signal processing. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Tsunoda in view of Marx with the means for presenting a recognition candidate list to a user as a result of a recognition error as taught by Chen in order to provide a means for a user to easily correct a recognition error by selecting an alternative choice from a list of recognition candidates (*Chen, Col. 1, Lines 26-43*).

*Conclusion*

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Kibre et al (*U.S. Patent: 5,966,691*)- teaches a system that generates different types of voice messages if an initial message is ignored by a user by modifying tone and pitch to indicate urgency.


Kato et al (*U.S. Patent: 6,263,202*)- teaches a voice messaging system that indicates a sense of urgency through voice tone selection.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632 and email is James.Wozniak@uspto.gov. The examiner can normally be reached on Mondays-Fridays, 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached at (571) 272-7582. The fax/phone number for the Technology Center 2600 where this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center receptionist whose telephone number is (703) 306-0377.

James S. Wozniak  
8/16/2005

  
**SUSAN MCFADDEN**  
**PRIMARY EXAMINER**